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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,528	10/08/2003	Zhong-You Joe Shi	10541-1808	7360
29074	7590	06/14/2005	EXAMINER	
VISTEON C/O BRINKS HOFER GILSON & LIONE PO BOX 10395 CHICAGO, IL 60610			KALIVODA, CHRISTOPHER M	
			ART UNIT	PAPER NUMBER
			2883	

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.		Applicant(s)	
	10/681,528		SHI, ZHONG-YOU JOE	
	Examiner		Art Unit	
	Christopher M. Kalivoda		2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-20 is/are rejected.
- 7) ☒ Claim(s) 1, 2, 4-10, 13 and 15-19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/27/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

Claims 1, 2, 4-9, 13 and 15-19 objected to because of the following informalities:

Regarding claim 1, line 3, optical fiber light cable is redundant. The term "optical fiber" should be used.

In line 4, "cable" should be replaced with "optical fiber".

In line 5, the word "cable" should be deleted. In line 8, "light cable" should be deleted.

Regarding claim 2, line 3, the last word "cable" should be deleted

Regarding claim 4, line 2, "a wheel mounting a plurality ... between" is unclear. For purposes of examination, it is assumed there is a wheel with a plurality of filters mounted on the wheel (i.e. a filter wheel) to filter and change the color of the light.

In line 3, the word "cable" should be replaced with "optical fiber" and there appears to be an extra word "the" after the word "filter".

In line 4, the word "cable" should be replaced with "optical fiber".

Regarding claim 5, "light cable" should be deleted.

Regarding claim 7, line 2, the cladding apertures were "predefined" in claim 1 as opposed to "predetermined" in line 2.

In line 2, the word "cables" should be replaced with "fibers".

Regarding claim 8, line 7, "fiberin" should be "fiber in".

In line 8, "cable" should be replaced with "optical fiber" as there is no antecedent basis.

In lines 9-10, it is unclear what is meant by "affixing ... to said instrument panel in the vicinity of said instrument panel" since if the fiber is affixed to the panel, it necessarily is in the vicinity of the panel.

Regarding claim 9, line 3, the apertures were "predefined" in claim 1 as opposed to "predetermined" in line 3. In addition, in line 3, there is no previous reference to "the area to be illuminated"

Regarding claim 13, lines 2-3, "a wheel mounting a plurality ... between" is unclear. For purposes of examination, it is assumed there is a wheel with a plurality of filters mounted on the wheel (i.e. a filter wheel) to filter and change the color of the light.

Regarding claim 15, line 3, the apertures were "predefined" in claim 8 as opposed to "predetermined" in line 3.

Regarding claim 16, line 3, there is no prior reference to "cable fiber". The word "cable" should be replaced with "optical".

Regarding claim 17, lines 2-3, there is no prior reference to "said occupant compartment".

In line 3, "light cable" should be deleted.

In line 4, "light cable" should be deleted.

Regarding claim 18, line 3, the areas were "predefined" in claim 17 as opposed to "predetermined" in line 3.

Regarding claim 19, lines 2-3, "wheel mounting a plurality ... between" is unclear. For purposes of examination, it is assumed there is a wheel with a plurality of filters mounted on the wheel (i.e. a filter wheel) to filter and change the color of the light.

In line 3, the word "cable" should be replaced with "optical fiber".

In line 4, the word "cable" should be replaced with "optical fiber".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5-9, 14-17 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,206,533 to Shi.

Regarding independent claims 1, 8 and 17, Shi teaches a motor vehicle lighted instrument panel comprising: an instrument panel (Fig 1, ref sign 10) having at least one first portion to be illuminated (Fig 1, ref sign 14);

an optical fiber light cable extending around said at least one first portion (Fig 1, ref sign 22), said cable including a cladding layer (Fig 3, ref sign 26) surrounding the core (Fig 3, ref sign 24) of the optical fiber cable, and at least one predefined aperture (Fig 3, ref sign 29) with selective application of said cladding layer only surrounding a portion of the length and circumference of said core (Fig 3); and a light source (Fig 1, ref sign 32) optically connected to said optical fiber light cable so that light is emitted from said aperture to illuminate said at least one first portion of said instrument panel.

The fiber is affixed to the instrument panel in the vicinity of the instrument panel (col 2, lines 48-50)

Selective application of the cladding can have reasonable broad interpretations consistent with the specification. For example, the mere fact there is a cladding means that cladding was selectively applied since a particular clad was selected for use. Claddings are also typically selected to have a lower refractive index than the core in order to confine light propagation and are typically selected based on desired properties.

Regarding claims 5 and 15, there is a plurality of apertures (Fig 1) since multiple gages are illuminated.

Regarding claims 6 and 16, the cladding layer blocks the light from emitting from the core/fiber (col 2, lines 35-50 since the cladding is removed to illuminate the desired area).

Regarding claims 7 and 14, there is a plurality of optical cables with predetermined cladding apertures to illuminate the panel (col 2, lines 46-48)

Regarding claims 9 and 20, the aperture faces the areas to be illuminated (col 2, lines 35-40 and Fig 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 11, 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shi, U.S. Patent 6,206,533 in view of Okano, U.S. Patent 4,977,487.

Regarding claims 2, 3, 11, 12 and 18, Shi teaches the limitations of claims 1, 8 and 17 as described above.

However, the reference is silent with respect to the addition of high-refractive index paint to one or a plurality of predetermined areas of said cladding aperture on said optical fiber cable or where the paint includes dyes that will fluoresce or phosphoresce.

Okano teaches the addition of high-refractive index paint to one or a plurality of predetermined areas on said optical fiber cable (col 5, lines 22-23).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Shi and add high-refractive index paint that fluoresces or phosphoresces to one or a plurality of predetermined areas of said cladding aperture on said optical fiber cable.

The motivation for adding the paint is to increase the brightness of the fiber (col 5, lines 23-24).

Claims 4, 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shi, U.S. Patent 6,206,533 in view of Dobbs, U.S. Patent 5,653,519.

Regarding claims 4, 13 and 19, Shi teaches the limitations of claims 1, 8 and 17 as described above.

However, the reference is silent with respect to a wheel with a plurality of colored filters interposed between the light source and the fiber to selectively filter and change the color of light transmitted to the cable wherein a means for selecting the color of light emitted through the cladding aperture is included.

Dobbs teaches a wheel with a plurality of colored filters interposed between the light source and the fiber to selectively filter and change the color of light transmitted to the cable (col 2, lines 43-47, 53-54).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Shi to include a wheel with a plurality of colored filters interposed between the light source and the fiber to selectively filter and change the color of light transmitted to the cable.

The motivation for including this wheel is to create a zone between the source and fiber, which is cooler, and thus protect the exposed fiber ends from UV and IR (col 2, lines 47-50) as well as provide desired colored output (col 2, lines 60-61).

Allowable Subject Matter

Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 10, the prior art of record, taken alone or in combination, fails to disclose or render obvious the step of applying a masking layer to said optical fiber in

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
areas desired to have a predefined aperture before applying said cladding layer to said optical fiber in combination with the rest of the limitations of the claim(s).

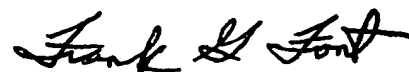
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Kalivoda whose telephone number is (571) 272-2476. The examiner can normally be reached on Monday - Friday (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Cmk
06/06/05



Frank G. Font
Supervisory Patent Examiner
Technology Center 2800